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EXAMINER	
BAUER, CASSEY D	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/552,986	BREKKE, TOR	
	Examiner	Art Unit	
	Cassey Bauer	3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-25 and 28-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-25 and 28-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The Amendment filed March 24, 2010 has been entered. Claims 18-25 and 28-36 remain pending in the application. The objections to the drawings and specification of the previous office action has been withdrawn in light of Applicant's cancellation of claim 26 and 27.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 18, 20, 23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,116,043 to Clark et al, hereinafter referred to as Clark in view of US 6,216,469 B1 to Miller, hereinafter referred to as Miller, and in further view of US 6,301,904 B1 to Goldstein, hereinafter referred to as Goldstein.

In reference to claim 18, Clark, Miller and Goldstein disclose the claimed invention.

Clark discloses a method for tempering at least one packaged product unit in a treatment tank (16), the method comprising:

placing the at least one packaged product unit in the treatment tank (16), see column 4 lines 1-11; and

circulating the cooling liquid in the treatment tank around the at least one packaged product unit in order to cool the at least one packaged product unit, wherein the cooling liquid present in an overflow trough (134) located at an upper part of the treatment tank (16, see figure 3

Clark fails to teach introducing ice slurry comprising water and ice particles into the treatment tank and wherein the overflow is pumped through a pipe connected to the overflow trough and injected back into the treatment tank through at least one injection nozzle.

Miller teaches that it is a known method to introduce ice slurry into a chill treatment tank in order to process and chill goods processed within; see at least column 4 lines 45-60. Miller further teaches that a significant benefit to an ice slush system is their use of off-period ice building to reduce power costs, see column 1 lines 40-56. Further, the cooling coil of Clark (84) is perfectly capable of producing ice by the method taught by Miller in column 1 lines 40-57 (i.e. ice is built on cooling coils) and it would have been within the capabilities of one skilled in the art to modify the system of Clark by the teachings of Miller to include introducing an ice slurry to the tank (16) of Clark instead of merely chilled liquid. Therefore, since all claimed elements were known in the art and one having

ordinary skill in the art could have combined the elements as claimed by known methods, with no change in their respective functions and the combination would have yielded the predictable result of providing chilled ice slurry to the tank, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify the system of Clark to introduce ice slurry comprising water and ice particles into the treatment tank in order to advantageously produce slush during off-periods to reduce power costs.

Goldstein teaches that it is a known method to recirculate at least a portion of ice particles collected from an over flow (40A) of an ice tank (36A) back into the ice storage tank (via pump 44A). Further, one skilled in the art would recognize that by recycling the slurry collected in the overflow trough (134) of Clark and Miller as modified above, that one could take advantage of residual cooling remaining in the slurry exiting the tank. One would further understand that by diverting the slurry solution back to the lower tank, the need to dispose of possibly contaminated slurry solution would be eliminated. Further, it would have been well within the capabilities of one having ordinary skill to divert the slurry exiting the overflow through (134) to the lower tank and meet the claimed limitaitons. Therefore, since all claimed elements were known in the art and one having ordinary skill in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable result of recycling the overflow, it would have been obvious to one having ordinary skill in the art at the time the invention was

made, in order to advantageously recycle the slurry and take advantage of the residual cooling capacity contained within the overflow.

In reference to claim 20, Clark, Miller and Goldstein disclose the claimed invention.

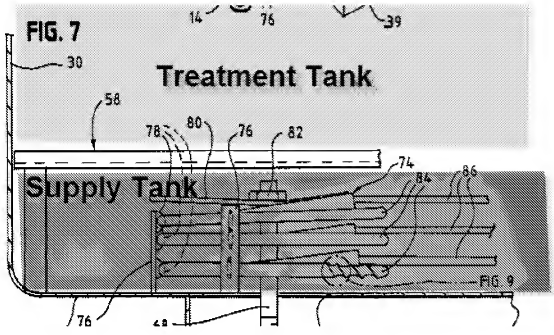
Clark, Miller and Goldstein fail to specifically disclose at least three injection nozzles.

However, the nozzle (28) of Clark is an essential working parts in that without it, slurry would fail to provide circulation through the tank for agitation of the food containers. Further, the requirement of at least three injection nozzles is mere duplication of an essential working part of the apparatus of Clark. Applicant should note that it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. Further, one skilled in the art would recognize that by placing three nozzles for distribution of cooled water into the tank, that one could more evenly distribute cooling slurry to the tank and prevent warm spots from developing as distance from the center increases. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide at least three injection nozzles in order to more evenly distribute the cooling slurry to the tank and prevent warm spots from developing as the distance from the center increases.

In reference to claim 23, Clark, Miller and Goldstein disclose the claimed invention.

Clark, Miller and Goldstein fail to specifically disclose when the temperature of the ice slurry reaches approximately 0.5 degrees Celsius, additional ice slurry is introduced into the treatment tank from a supply tank in

which the ice slurry is prepared with an adequate ratio of ice particles from an ice machine. One skilled in the art would understand that adding additional ice slurry to the tank is an obvious mechanical expedient for increasing the temperature of the tank. It is also a well known concept to have a set point for a refrigeration system when the temperature in the tank is above the set point, to provide additional cooling to the tank to maintain the set point in the tank. Further, one skilled in the art would recognize that when freezing a product, one would wish to keep the tank environment below the freezing point of water. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify the system of Clark, Miller and Goldstein to include a set point slightly above freezing (i.e .5 degrees Celcius) and provide additional ice slurry into the tank from a supply tank, as defined in Reference 1 below, when the temperature exceeds this set point in order to ensure that the temperature of the tank remains below freezing when it is desired to freeze the items introduced into the tank.



Reference 1

In reference to claim 26, Clark, Miller and Goldstein disclose the claimed invention.

Clark, Miller and Goldstein fail to teach wherein the ice slurry is circulated between a number of treatment tanks for product units in series or in parallel and an ice slurry supply tank for tempering of the product units.

However, the treatment tank (16) of Clark is an essential working part in that without it, there would be no means for holding the ice slurry and the food product and the system would fail to work as intended. Applicant should note that it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. Further one skilled in the art would recognize that by providing a number treatment tanks in either series or parallel to each other, that one ice forming tank (as defined in Reference 1 above) could be utilized to cool multiple types of food products which require varying

temperature treatments. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a number of treatment tanks for product units in series or in parallel with the ice slurry supply tank in order to accommodate the temperature treatment of different food products requiring different temperature treatments.

In reference to claim 35, Clark, Miller and Goldstein disclose the claimed invention.

Wherein the at least one injection nozzle is positioned to inject the ice slurry present in the overflow trough horizontally into the treatment tank. Since the injection nozzle of Goldstein (on the end of pipe 48A) is positioned to inject the ice slurry present in the overflow trough horizontally into the treatment tank (36A) when modifying the apparatus of Clark and Miller by Goldstein in claim 18 above, one would do so by providing the at least one injection nozzle is positioned to inject the ice slurry present in the overflow trough horizontally into the treatment tank and therefore meet the claimed limitations.

Claims 19, 21, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark, Miller and Goldstein and in further view of WO 99/21429 to Borrup, hereinafter referred to as Borrup.

In reference to claim 19, Clark, Miller, Goldstein and Borrup disclose the claimed invention.

Clark, Miller and Goldstein fail to teach wherein the ice slurry is 25 % ice particles and has a temperature of -2.5 degrees Celsius.

However, Borrup teaches that the ice content percent weight of ice in a slush ice is a result effective variable in that it achieves a recognized result. Under this analysis, the recognized result is providing an excellent heat-transfer coefficient for slush ice and providing a specific pressure loss, see Borrup page 6 lines 23 through page 7 line 7.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select an optimum percent weight of ice particles as 25% in the ice slurry in order to achieve optimum heat-transfer coefficients and pressure losses.

Further Borrup teaches the temperature of the chilling medium is a results effective variable in that it achieves a recognized result. Under this analysis, the recognized result is shell freezing, see page 3 lines 21-57.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to select and optimum working temperature of -2.5 Celcius of the slurry in order to achieve or prevent the desired shell freezing for the food being chilled.

In reference to claim 21, Clark, Miller, Goldstein and Borrup disclose the claimed invention.

Clark, Miller, and Goldstein fail to teach wherein the water is a saline brine in the form of a mixture of salt dissolved in fresh water comprising approximately 2% salt

However, Borrup teaches that it is a known method to provide a slurry wherein the water is a saline brine in the form of a mixture of salt dissolved in fresh water, see page 7, lines 11-13. Borrup further teaches that the percentage of salt dissolved is a result effective variable in that it achieves a recognized result. Under this analysis the recognized result is providing a good heat-transfer coefficient, see page 7 lines 10-13.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to select an optimum mixture of salt and freshwater of 2% salt in order to achieve the optimum heat-transfer coefficient for cooling the desired products.

In reference to claim 22, Clark, Miller, Goldstein and Borrup disclose the claimed invention.

Clark, Miller and Goldstein fail to teach wherein the ice slurry comprises approximately 25% ice particles by weight, 2 % sodium chloride by weight and the remainder fresh water, whereby the sodium chloride allows for the

temperature of the ice slurry to be approximately -2.5 degrees Celsius without the water freezing.

However, Borrup teaches that the ice content percent weight of ice in a slush ice is a result effective variable in that it achieves a recognized result. Under this analysis, the recognized result is providing an excellent heat-transfer coefficient for slush ice and providing a specific pressure loss, see Borrup page 6 lines 23 through page 7 line 7.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select an optimum percent weight of ice particles of 25% by weight in the ice slurry in order to achieve optimum heat-transfer coefficients and pressure losses.

Borrup further teaches that the percentage of salt dissolved is a result effective variable in that it achieves a recognized result. Under this analysis the recognized result is providing a good heat-transfer coefficient, see page 7 lines 10-13.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to select

an optimum mixture of salt and freshwater at 2% salt in order to achieve the optimum heat-transfer coefficient for cooling the desired products.

Further Borrup teaches the temperature of the chilling medium is a results effective variable in that it achieves a recognized result. Under this analysis, the recognized result is shell freezing, see page 3 lines 21-57.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to select the claimed optimum working temperature of the slurry of -2.5 Calculus in order to achieve or prevent the desired shell freezing for the food being chilled.

In reference to claim 24, Clark, Miller, Goldstein and Borrup disclose the claimed invention.

Clark, Miller and Goldstein as modified above fail to teach the ice slurry is prepared in the supply tank to comprise from about 15% to about 25% ice particles and has a temperature from about -1 degrees Celsius to about -2 degrees Celsius.

However, Borrup teaches that the ice content percent weight of ice in a slush ice is a result effective variable in that it achieves a recognized result. Under this analysis, the recognized result is providing an excellent heat-transfer coefficient for slush ice and providing a specific pressure loss, see Borrup page 6 lines 23 through page 7 line 7.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select an optimum percent weight of ice particles to be between 15% to 25% in the ice slurry in order to achieve optimum heat-transfer coefficients and pressure losses.

Further Borrup teaches the temperature of the chilling medium is a results effective variable in that it achieves a recognized result. Under this analysis, the recognized result is shell freezing, see page 3 lines 21-57.

Further Borrup teaches the temperature of the chilling medium is a results effective variable in that it achieves a recognized result. Under this analysis, the recognized result is shell freezing, see page 3 lines 21-57.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to select and optimum working temperature of -1 to -2 Celsius of the slurry in order to achieve or prevent the desired shell freezing for the food being chilled.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark, Miller, Goldstein and in further view of US 6,301,904 B1 to Goldstein, hereinafter referred to as Goldstein.

In reference to claim 25, Clark, Miller, Goldstein and Goldstein 904 disclose the claimed invention.

Clark Miller and Goldstein as modified above fail to teach wherein the ice slurry in the supply tank (see reference 1 above) is kept in a condition which allows for pumping by stirring it with a paddle mechanism.

Goldstein 904 teaches that it is a known method to agitate ice slurry held within a tank with paddles (228, blades, see figure 2) in order to ensure sufficient agitation of the ice slurry.

Further, one skilled in the art would know that if the contents of the supply tank (as defined in reference 1 above) was not agitated, the ice would form in solid masses around the cooling coils (84) and the ice would fail to be distributed into a slurry formation. Since all claimed elements were known in the art and one having ordinary skill in the art could have combined the elements as claimed by known methods with no change in their respective function, and the combination would have yielded the predictable result of forming an evenly distributed ice slurry, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Clark, Miller, and Goldstein to include agitation paddles as taught by Goldstein 904 in the supply tank in order to ensure sufficient agitation of the ice slurry.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark, Miller, Goldstein and in further view of US 3,300,933 to Schlemmer, hereinafter referred to as Schlemmer.

In reference to claim 27, Clark, Miller, Goldstein and Schlemmer disclose the claimed invention.

Clark, Miller and Goldstein fail to disclose wherein the treatment tanks are utilized in order, one after the other.

Schlemmer teaches that when an unfrozen food is to be cooled, that it is more economical to cool the product in two separate stages, see column 1 lines 44-62. One skilled in the art would, then be motivated to provide a process and apparatus with multiple stages utilized in order, one after the other in order to cool unfrozen food in stages. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to utilize the treatment tanks of varying temperatures in order, one after the other in order to freeze food in a more economical manner.

Claims 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark, Miller, Goldstein and in further view of US 5,557,943 to Coelho et al., hereinafter referred to as Coelho.

In reference to claim 28, Clark, Miller, Goldstein and Coelho disclose the claimed invention.

Clark, Miller and Goldstein fail to specifically disclose wherein the at least one packaged product unit comprises a vacuum packed product.

Coelho teaches that for efficient chilling of food articles, it is a known method to conform the exterior periphery of a membrane to an article to be chilled by a vacuum to assure that air gaps, a source of inefficiency in heat transfer, are kept to minimum, see column 4 lines 40-48. One skilled in the art would be concerned about maintaining a highly efficient heat transfer process. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Clark, Miller and Goldstein to include a vacuum packed product in order to assure that air gaps are kept to a minimum.

In reference to claim 29, Clark, Miller, Goldstein and Coelho disclose the claimed invention.

wherein the vacuum packed product comprises a food stuff, see Clark title, abstract, etc.

In reference to claim 30, Clark, Miller, Goldstein and Coelho disclose the claimed invention.

Clark teaches that typical cook-chill methods involve first cooking the food and then immediately placing the food in a chiller, See column 1 lines 25-30 but fails to teach:

wherein the at least one packaged product unit is a plurality of vacuum packed products, heating the plurality of vacuum packed products hanging side

by side on a rack, transporting the rack with the plurality of vacuum packed products to the treatment tank, submerging the rack and the plurality of vacuum packed products in the treatment tank; and cooling the plurality of vacuum packed products for a predetermined period of time.

Coelho teaches that for efficient chilling of food articles, it is a known method to conform the exterior periphery of a membrane to an article to be chilled by a vacuum to assure that air gaps, a source of inefficiency in heat transfer, are kept to minimum, see column 4 lines 40-48. One skilled in the art would be concerned about maintaining a highly efficient heat transfer process. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Clark, Miller and Goldstein to include a plurality of vacuum packed product in order to assure that air gaps are kept to a minimum.

Further Coelho teaches that it is known to temperature treat vacuum packed food products (A) by providing a rack for hanging side by side on a rack, see figure 6. Since it is a known method to provide a vacuum packed food products (A) with a rack for hanging side by side by side during temperature treatment, and one having ordinary skill in the art could have combined the elements as claimed with no change in their respective functions and the combination would have yielded the predictable result of providing a mechanism for easily transporting food products from an oven to the chiller during the cook-chill process, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to modify the method of Clark, Miller, and Goldstein to include heating the plurality of vacuum packed products hanging side by side on a rack, transporting the rack with the plurality of vacuum packed products to the treatment tank, submerging the rack and the plurality of vacuum packed products in the treatment tank and cooling the plurality of vacuum packed products in order to perform the cook-chill process with a mechanism which easily allows for transporting the food products from an oven to the chiller.

Further, it would be well within the capabilities of one having ordinary skill in the art to determine a minimum period of time that the food products must be chilled in order to obtain a desired core temperature. Therefore, it would have been obvious to one having ordinary skill in the art to leave the food products in the chiller for a predetermined period of time in order to ensure that the core temperature of the food was reached before storing the products.

Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark and Goldstein.

In reference to claim 31, Clark and Goldstein disclose the claimed invention.

Clark teaches a system for tempering at least one packaged product unit utilizing an ice slurry comprising water and ice particles, the system comprising:

at least one treatment tank (16) for submerging the at least one packaged product unit, wherein the at least one treatment tank comprises an upper part with an overflow trough (134); and a pump (38).

Clark fails to teach at least one injection nozzle a pipe connecting the overflow trough and the at least one injection nozzle the pump associated with a pipe for pumping ice slurry present in the overflow trough through the pipe and injecting the ice slurry back into the at least one treatment tank through the least one injection nozzle so as to circulate the ice slurry in the at least one treatment tank around the at least one packaged product unit in order to cool the at least one packaged product unit.

Goldstein teaches that it is a known method to recirculate at least a portion of ice particles collected from an over flow of an ice tank back into the ice storage tank. Further, one skilled in the art would recognize that by recycling the slurry collected in the overflow trough (134) of Clark and Miller as modified above, that one could take advantage of residual cooling remaining in the slurry exiting the tank. One would further understand that by diverting the slurry solution back to the lower tank, the need to dispose of possibly contaminated slurry solution would be eliminated. Further, it would have been well within the capabilities of one having ordinary skill to divert the slurry exiting the overflow through (134) to the lower tank and meet the claimed limitaitons. Therefore, since all claimed elements were known in the art and one having ordinary skill in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable result of recycling the overflow, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to have the

pump associated with a pipe for pumping ice slurry present in the overflow trough through the pipe and injecting the ice slurry back into the at least one treatment tank through the least one injection nozzle in order to advantageously recycle the slurry and take advantage of the residual cooling capacity contained within the overflow.

In reference to claim 32, Clark and Goldstein disclose the claimed invention.

Clark teaches a supply tank (see reference 1 above) in which the ice slurry is prepared, connected to the at least one treatment tank (16); and

means for circulating the ice slurry between the at least one treatment tank and the supply tank (40).

Applicant should note that expression relating an apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim. Since the apparatus of Clark as modified by Goldstein are capable of preparing an ice slurry, the apparatus of Clark and Goldstein as modified in claim 31 above meets the intended use required by the claims.

In reference to claim 36, Clark and Goldstein disclose the claimed invention.

Wherein the at least one injection nozzle is positioned to inject the ice slurry present in the overflow trough horizontally into the treatment tank. Since the injection nozzle of Goldstein (on the end of pipe 48A) is positioned to inject the ice slurry present in the overflow trough horizontally into the treatment tank (36A) when modifying the apparatus of Clark and Miller by Goldstein in claim 18

above, one would do so by providing the at least one injection nozzle is positioned to inject the ice slurry present in the overflow trough horizontally into the treatment tank and therefore meet the claimed limitations.

Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being obvious over Clark and Goldstein, and in further view of Coelho.

In reference to claim 33, Clark, Goldstein and Coelho disclose the claimed invention.

Clark and Goldstein fail to specifically disclose a transport organ for continual transport of the at least one packaged product unit to the at least one treatment tank for cooling with suspension for a required period of time.

However, Coelho teaches that it is known to temperature treat vacuum packed food products (A) by providing a rack for suspending the food products side by side on a rack during temperature treatment, see figure 6. Since all claimed elements were known in the art and one having ordinary skill in the art could have combined the elements as claimed with no change in their respective functions and the combination would have yielded the predictable result of providing a mechanism for continually transporting food products from an oven to the chiller during the cook-chill process, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Clark, and Goldstein to include heating the products suspended side by side on a rack and transporting the rack with the plurality of vacuum packed products to the treatment tank in order to perform the cook-chill process with a

mechanism which easily allows for transporting the food products from an oven to the chiller.

In reference to claim 34, Clark, Goldstein and Coelho disclose the claimed invention.

Clark and Goldstein fail to specifically disclose a rack on which the at least one packaged product unit hangs while submerged in the at least one treatment tank.

However, Coelho teaches that it is known to temperature treat vacuum packed food products (A) by providing a rack for suspending the food products side by side on a rack during temperature treatment, see figure 6. Since all claimed elements were known in the art and one having ordinary skill in the art could have combined the elements as claimed with no change in their respective functions and the combination would have yielded the predictable result of providing a mechanism for suspending the food products during the chill process, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Clark, and Goldstein to include heating the products suspended side by side on a rack while submerged in the treatment tank in order to suspend the food products in the chill tank and provide for sufficient convection of the food products and the chilled liquid.

Response to Arguments

Applicant's arguments with respect to claims 18-30 beginning on page 9 of the response that neither Clark nor Miller provide disclosure or rationale for circulating excess liquid back into the tank has been considered but is not

persuasive. The reference of Goldstein was used by the examiner to teach the elements missing from Clark and Miller.

Applicant's arguments with respect to claims 18-30 beginning on page 9 of the response that since the purpose of Goldstein is to store the ice slurry that there is no need to provide additional recirculation of liquid absent impermissible hindsight has been considered but is not persuasive. Applicant should note that in determining obviousness, neither the particular motivation to make the claimed invention nor the problem the inventor is solving controls. The proper analysis is whether the claimed limitation would have been obvious to one of ordinary skill in the art after consideration of all the facts. Factors other than the disclosures of the cited prior art may provide basis for concluding that it would have been obvious to one of ordinary skill in the art to bridge the gap, see MPEP 2141 III. Exemplary rationales that may support a conclusion of obviousness include (but are not limited to) *combining prior art elements according to known methods to yield predictable results*, see MPEP 2141 III (A). Therefore, it is not improper for the examiner to conclude that combining prior art elements according to known methods to yield predictable results is appropriate rationale to support a prima facie case of obviousness for the combination of Miller, Clark, and Goldstein. In the rejection of claim 18 above, the examiner set forth that it is *a known method* to recirculate at least a portion of ice particles collected from an over flow of an ice tank back into the ice storage tank as taught by Goldstein. The examiner also articulated that recirculating the overflow would provide predictable results and

then set forth several examples of predictable results (i.e., diverting the slurry solution back to the lower tank would eliminate the need to dispose of possibly contaminated slurry solution; recycling overflow; and take advantage of residual cooling of the slurry). These facts articulate the reasons why the claimed invention would have been obvious as required under a KSR obviousness analysis. Since Applicant has not provided any rebuttal evidence which convincingly traverses the examiner's above statements of fact such as evidence or argument to demonstrate that: (A) one of ordinary skill in the art could not have combined the claimed elements by known methods (e.g., due to technological difficulties); (B) the elements in combination do not merely perform the function that each element performs separately; or (C) the results of the claimed combination were unexpected, see MPEP 2141 V, Applicant has not successfully traversed the examiner's arguments. Therefore, the examiner asserts that the rationale provided above that it would have been obvious to combine Clark, Miller and Goldstein because combining prior art elements according to known methods to yield predictable results is a prima facie case of obvious and is therefore proper and remains.

Applicant's arguments with respect to claim 35 beginning on page 11 of the response that neither Clark, Miller nor Goldstein teach at least one injection nozzle to inject the ice slurry present in the overflow trough horizontally into the treatment tank has been considered but is not persuasive. From Goldstein figure 2, it is apparent that the injection nozzle on the end of pipe (48A) will inject the

ice slurry present in the overflow trough horizontally into the treatment tank. Therefore, when combining the recycle loop of Goldstein with the apparatus of Clark and Miller, one would combine the references so that the recycle of Clark as modified by Goldstein would also inject the ice slurry present in the overflow trough horizontally into the treatment tank. Therefore, the combination of Clark, Miller and Goldstein will result in the claimed limitations. Applicant should note that although not explicitly taught by Goldstein, the pipe (48A) of Goldstein inherently has a nozzle (terminal discharging pipe) on the end which meets the claimed limitations as an injection nozzle. Therefore, the examiner asserts that the rejection of claim 35 is proper and remains.

Applicant's arguments regarding claims 31-34, and 36 are substantially the same as Applicant's arguments regarding claims 18-30 and 35. See the examiner's response to Applicant's arguments regarding claims 18-30 and 50 above.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cassey Bauer whose telephone number is (571)270-7113. The examiner can normally be reached on Monday -Friday: 7-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules can be reached on (571)272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cassey Bauer/
Examiner, Art Unit 3744

/Frantz F. Jules/
Supervisory Patent Examiner, Art Unit 3744